

CLAIMS:

1. A storage device (2) for storing data pieces and comprising:
 - an input (27) for receiving first data pieces having a first data format;
 - a transcoder (22) for transcoding a first data piece into a second data piece having a second data format different from the first data format;
 - 5 - a storage medium (23) for storing a set of first data pieces and a subset of second data pieces; and
 - a processor (20) for searching for a predefined second data piece stored in the storage medium (23) and for, in response to a positive search result, supplying the predefined second data piece to a reproduction device (3) and for, in response to a negative
 - 10 search result, controlling the transcoder (22) for transcoding a corresponding first data piece into the predefined second data piece and supplying the predefined second data piece to the reproduction device (3).
2. A storage device (2) as claimed in claim 1, wherein the processor (20) is
- 15 arranged to delete second data pieces stored in the storage medium in dependence of data piece priorities.
3. A storage device (2) as claimed in claim 1, wherein the data pieces are pieces of music, with the first data format corresponding with a first audio standard and with the
- 20 second data format corresponding with a second audio standard, which first audio standard requires less storage capacity than the second audio standard.
4. A storage device (2) as claimed in claim 1, wherein the reproduction device (3) is coupled to the storage device (2) via a wireless channel (4) requiring data pieces to
- 25 have the second data format.
5. A storage device (2) as claimed in claim 1, wherein the storage device (2) comprises an audio recorder and the reproduction device (3) comprises one or more loudspeakers.

6. A system (1) comprising a reproduction device (3) and a storage device (2) for storing data pieces and comprising:
- an input (27) for receiving first data pieces having a first data format;
 - 5 - a transcoder (22) for transcoding a first data piece into a second data piece having a second data format different from the first data format;
 - a storage medium (23) for storing a set of first data pieces and a subset of second data pieces; and
 - a processor (20) for searching for a predefined second data piece stored in the storage medium (23) and for, in response to a positive search result, supplying the predefined second data piece to the reproduction device (3) and for, in response to a negative search result, controlling the transcoder (22) for transcoding a corresponding first data piece into the predefined second data piece and supplying the predefined second data piece to the reproduction device (3).
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7. A processor (20) for use in a storage device for storing data pieces, which storage device comprises:
- an input (27) for receiving first data pieces having a first data format;
 - a transcoder (22) for transcoding a first data piece into a second data piece having a second data format different from the first data format;
 - 20 - a storage medium (23) for storing a set of first data pieces and a subset of second data pieces; and
 - the processor (20) for searching for a predefined second data piece stored in the storage medium (23) and for, in response to a positive search result, supplying the predefined second data piece to a reproduction device (3) and for, in response to a negative search result, controlling the transcoder (22) for transcoding a corresponding first data piece into the predefined second data piece and supplying the predefined second data piece to the reproduction device (3).
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8. A method for supplying data pieces to a reproduction device (3) and comprising the steps of:
- receiving first data pieces having a first data format;
 - transcoding a first data piece into a second data piece having a second data format different from the first data format;

- storing a set of first data pieces and a subset of second data pieces in a storage medium (23); and
- searching the storage medium (23) for a predefined second data piece for, in response to a positive search result, supplying the predefined second data piece to the reproduction device (3) and for, in response to a negative search result, transcoding a corresponding first data piece into the predefined second data piece and supplying the predefined second data piece to the reproduction device (3).

9. A processor program product for supplying data pieces to a reproduction device (3) and comprising the functions of:
- receiving first data pieces having a first data format;
 - transcoding a first data piece into a second data piece having a second data format different from the first data format;
 - storing a set of first data pieces and a subset of second data pieces in a storage medium (23); and
 - searching the storage medium (23) for a predefined second data piece for, in response to a positive search result, supplying the predefined second data piece to the reproduction device (3) and for, in response to a negative search result, transcoding a corresponding first data piece into the predefined second data piece and supplying the predefined second data piece to the reproduction device (3).